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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/623,796	09/08/2000	Philippe Patrice	032326-083	6700

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EXAMINER

TRINH, MINH N

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 06/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/623,796

Applicant(s)

PATRICE, PHILIPPE

Examiner

Minh Trinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/8/2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

### DETAILED ACTION

1. The amendment filed in paper No. 21 (dated 01/08/01) has been fully considered and made of record.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following are examples:
  - i) It is not clear how the embedding the metallised protrusions (claim 1, lines 4-5) can be successfully done for the following reasons: a) if the density of the antenna is being greater (or harder) than the associated material of the metallised protrusions, and b) it is also not known how the embedding can be done if the thickness of the antenna is being less than the height of the metallised protrusions, and what actually holding and simultaneously pushing the metallised protrusions to cause them to embed in the antenna thickness. Therefore the "embedding step" is considered to be incomplete. For example: the steps of "providing the metallised protrusions with a thickness less than the thickness of the antenna, etc., " (see specification page 6 lines 24-30) should be added to the claims language to clearly define the subject matter of the invention in which applicant(s) regard to. Further, applicants should carefully revise the claims to positively recite the manufacturing method steps.

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ii) it is not known what applicant is referring as "a material having a viscous state at the time that the chip attached" (claim 2, lines 2-3) what exactly is "a material having a viscous state". Further it appears the limitation recites "at the time that the chip attached" (claim 2, line 3) does not agree with the previous recited limitation: "at the time that the chip connected"(see claim 1, lines 5-6). Therefore, the term: "attached"(claim 3, line 3) should be changed to: --connected--.

iii) It is not clear what is being referred as "a form factor of the smart card" (claim 3, line 3), what is referred as "a form factor"? Please be more specific. Applicant should carefully revise the claims to positively recited the method step and correct other typos in order to clarify the claimed subject matter. Appropriate correction is required.

4. Claims 1 and 3-5, as best understood are rejected under 35 U.S.C. 102(b) as being anticipated by Moskowitz et al. This rejection is set forth in prior Office Action, Paper No. 4, paragraph 5, dated 1/31/2003.

5. Claims 2 and 6-8, as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Moskowitz et al. This rejection is set forth in prior Office Action, Paper No. 4, paragraph 7, dated 1/31/2003.

6. In addition, claims 1 and 3, as best understood are also rejected under 35 U.S.C. 102(b) as being anticipated by Kohama et al (US 5,856,662).

Kohama et al disclose a method for producing a contact less card including an integral circuit chip and an antenna comprising: producing metallised protrusions on two

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contact pads 82's on the chip 11; connecting the chip 11 to the antenna 81 by embedding the metallised protrusions 82 in a thickness (height) of the antenna 81 at the time the chip is connected to the antenna 81 (refer to Figs. 25-26, and the discussed at col. 14, lines 25-50); the antenna on an insulation substrate having a form factor of a smart card as recited in claim 3 (see Fig. 26 which shows antenna 81 on at least an associated insulation substrate 7); the . Note that the circuit pattern 81 of Kohama et al is read on "an antenna" as recited in the instant claims.

Limitation of claim 3 is also met as set forth above.

7. Claim 2, as best understood is rejected under 35 U.S.C. 103(a) as being unpatentable over Kohama et al (US 5,856,662).

Kohama et al as applied and relied upon above do not teach the antenna is from a material having a viscous state. It would have been an obvious matter of design choice to choose any desired material and its properties since applicant has not disclosed that the claimed viscous state would solve any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the conventional antenna structure taught by the applied reference.

8. Claims 4-7, and 8, as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohama et al (US 5,856,662) in view of Moskowitz et al (US 5,528,222).

As applied to claims 4 and 5, Kohama et al do not teach the antenna from a thermoplastic material with metallic particles and connecting the chip to the antenna by

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thermo-compression. Thermo plastic material with metallic particles is old and well known in the art. Further, regard to the connecting the chip to the antenna by thermo-compression, Moskowitz et al teach the antenna is produced by an associated process including thermo-compression (see col. 6, lines 1-5). Therefore, it would have been an obvious to one ordinary having skill in the art at the time the invention was made to employ the teachings of thermo plastic material in combine with the Moskowitz et al's thermo-compression process onto to method invention of Kohama et al in order to form a low profile contact less card device which meets manufacturing requirement, so that the production cost can be reduced.

As applied to claims 6 and 7, With respect to a moist conductive polymer material as recited in claims 6 and 7. It would have been an obvious matter of design choice to choose any desired material and its characteristic properties i.e., a moist conductor polymer, etc., since applicant has not disclosed that the exact material (see claims 6-7) would solve any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the same type of material as suggested by the applied art references.

As applied to claim 8, regard to the metallised protrusions having a conical shape. It would have been an obvious matter of design choice to make the different portions of the component of whatever form or shape was desired or expedient. A change in form or shape is generally recognized as being within the level of ordinary skill in the art, absent any showing of unexpected results.

***Response to Arguments***

9. Applicant's arguments filed 4/30/2003 have been fully considered but they are not persuasive.

a) The amend to claim languages has not overcome the 112 second paragraph rejection (see paragraph 2).

b) Regarding the prior art rejections, applicant argues that Moskowitz et al do not teach the metallised protrusions being embedded into a thickness of the antenna (see Applicant's Remarks page 7, first and second paragraphs). The recites limitation "into" is not found in the rejected and or amended claimed. At best the claims calls for embedding the metal protrusions in a thickness of the antenna (see claim 1, line 5) and it appears Moskowitz et al reference teach that (applicant is referred to related embodiment shown in figs. 2 and 3 that shows metal protrusion or bump 225 /325 have been embedded in a thickness of the antenna 230/330 of the devices 270/370 for forming one unit integral structure 270/370. Moskowitz et al also inherently disclose bonding including "thermo-compression bonding" (see Fig. 7 an the discussed in page 11, 2-3 paragraphs) what is also known as the metal bumps are being compress into the antenna to form a unit integral structure (see various related Figs. 7). For above reasons the broadly claimed limitation of "embedding the metal protrusions in a thickness of the antenna" as recited in the instant claims were and are properly rejected by Moskowitz reference. It is noted that Applicant's arguments are seem more specific than the claim language (see paragraph 2). Applicant lends great means to the term "embedding" The examiner takes the position that the term "embedding" is broad and

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the teaching thermo-compression bonding of applied art would meet the interpretation of such term therefore the prior art relied upon satisfies the examiners interpretation of the claim language.

c) Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Trinh whose telephone number is (703) 305-2887. The examiner can normally be reached on Monday -Thursday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7307 for regular communications and (703) 305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

mt  
June 24, 2003

A handwritten signature in black ink, appearing to read 'PETER VO', with a long horizontal flourish extending to the right.

PETER VO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700